

We claim:

1. A method for inhibiting or enhancing a biological activity mediated by a neurotrophin receptor, comprising contacting said neurotrophin receptor with an antibody specific for said neurotrophin receptor, wherein said neurotrophin receptor is selected from the group consisting of human TrkA, human TrkB and human TrkC.

2. The method of claim 1 wherein said antibody is an antagonistic antibody.

10 3. The method of claim 1 wherein said antibody is an agonistic antibody.

4. The method of claim 1 wherein said antibody is a monoclonal antibody.

15 5. The method of claim 1 wherein said antibody is an antibody fragment selected from the group consisting of Fab, F(ab'), F(ab')₂ and Fv.

6. The method of claim 1 wherein said antibody is selected from monospecific antibodies, bispecific antibodies and heteroconjugate antibodies.

20 7. The method of claim 1 wherein said antibody is a human antibody or a humanized antibody.

8. The method of claim 1 wherein said human TrkA comprises the sequence set forth in SEQ ID NO: 9.

25 9. The method of claim 1 wherein said human TrkB comprises the sequence of SEQ ID NO: 2 or SEQ ID NO: 4.

10. The method of claim 1 wherein said human TrkC comprises the sequence of SEQ 30 ID NO: 6 or SEQ ID NO: 8.

11. The method of claim 1 wherein said biological activity is inflammatory pain, and

10 said inflammatory pain is inhibited.

12. The method of claim 1 wherein said biological activity is tumor development, and said tumor development is inhibited.

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13. The method of claim 1 wherein said biological activity is cancer development, and said cancer development is inhibited.

14. The method of claim 1 wherein said biological activity is aberrant neuron sprouting, and said aberrant neuron sprouting is inhibited.

15. The method of claim 1 wherein said biological activity is neuronal survival, and said neuronal survival is enhanced.

16. The method of claim 15 wherein said method comprises a treatment for a neurodegenerative disease.

17. A method for the diagnosis of a pathological condition characterized by the over- or under-expression of a neurotrophin receptor in a subject, comprising (a) contacting a biological sample from said subject with an antibody specific for a neurotrophin receptor, and (b) testing for the presence of said antibody in complex with a neurotrophin receptor, further wherein said neurotrophin receptor is selected from the group consisting of human TrkA, human TrkB and human TrkC

20 25 18. The method of claim 17, wherein said pathological condition is selected from the group consisting of inflammatory pain, pancreas disorders, kidney disorders, lung disorders, cardiovascular disorders, tumors, cancers, aberrant neuron sprouting, neurodegenerative diseases and psychiatric disorders.

30 19. A method for the diagnosis of a pathological condition characterized by the over- or under-expression of a neurotrophin receptor in a subject, comprising (a) contacting a biological sample from said subject with a detectably-labeled nucleic acid capable of hybridizing

to at least a portion of a neurotrophin receptor transcript, and (b) testing for the presence of said detectably-labeled nucleic acid in complex with a neurotrophin receptor transcript, further wherein said neurotrophin receptor is selected from the group consisting of human TrkA, human TrkB and human TrkC.

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20. A method for the diagnosis of a pathological condition characterized by the over- or under-expression of a neurotrophin in a subject, comprising (a) contacting a biological sample from said subject with a detectably-labeled polypeptide comprising at least a portion of a neurotrophin receptor capable of binding a neurotrophin, and (b) testing for the presence of said detectably-labeled polypeptide in complex with a neurotrophin, further wherein said neurotrophin receptor is selected from the group consisting of human TrkA, human TrkB and human TrkC.

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15. The method of claim 20, wherein said polypeptide comprising at least a portion of a neurotrophin receptor capable of binding a neurotrophin is an immunoadhesin.

20. The method of claim 20, wherein said neurotrophin is selected from the group consisting of NGF, BDNF/Neurotrophin-2, NT-3, and NT-4/5.

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23. A method for the treatment of a pathological condition associated with elevated or reduced endogenous neurotrophin production in a subject, comprising contacting said subject with a therapeutically effective amount of an antibody specific for a neurotrophin receptor, or a suitable fragment of said antibody, wherein said neurotrophin receptor is selected from the group consisting of human TrkA, human TrkB and human TrkC.

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24. A method for the treatment of a pathological condition associated with elevated or reduced endogenous neurotrophin production in a subject, comprising contacting said subject with a therapeutically effective amount of a polypeptide comprising at least a portion of a neurotrophin receptor capable of binding a neurotrophin, wherein said neurotrophin receptor is selected from the group consisting of human TrkA, human TrkB and human TrkC.

25. The method of claim 24, wherein said polypeptide comprising at least a portion of

a neurotrophin receptor capable of binding a neurotrophin is an immunoadhesin.